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Attorney Docket No. 2950.08US02

APPEAL BRIEF TRANSMITTAL

In re the application of:

	Reitz et al.	Confirmation No.: 5465
Application No.:	09/266,202	Examiner: K. S. Lee
Filed:	March 10, 1999	Group Art Unit: 2832
For:	ZINC OXIDE PARTICLES	

Mail Stop Appeal Brief-Patents
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

Transmitted herewith, in triplicate, is the Appeal Brief (14 pages plus Appendices A-C) in the above-identified application, with respect to the Notice of Appeal filed on August 17, 2004.

[X] Applicant(s) is/are entitled to small entity status in accordance with 37 CFR 1.27.

[X] A check in the amount of [ ] $340.00 (large entity) [X] $170.00 (small entity) to cover the filing fee.

Respectfully submitted,

Peter S. Dardi, Ph.D.
Registration No. 39,650

Please grant any extension of time necessary for entry; charge any fee due to Deposit Account No. 16-0631.

CERTIFICATE OF MAILING

I hereby certify that this document is being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on

October 18, 2004
Date of Deposit

Peter S. Dardi, Ph.D.

PATENT APPLICATION

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re the application of:	Attorney Docket No.: 2950.08US02
Reitz et al.	Confirmation No.: 5465
Application No.: 09/266,202	Examiner: K. S. Lee
Filed: March 10, 1999	Group Art Unit: 2832

For: ZINC OXIDE PARTICLES

APPEAL BRIEF

Mail Stop Appeal Brief - Patents
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

This is an appeal from the Final Office Action dated April 21, 2004, in which claims 1-5, 7-9 and 25-30 were finally rejected. A Notice of Appeal was filed on August 17, 2004.

Please grant any extension of time necessary for entry; charge any fee due to Deposit Account No. 16-0631.

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October 18, 2004 — Peter S. Dardi
Date of Deposit — Peter S. Dardi

REAL PARTY IN INTEREST

NanoGram Corporation, a corporation organized under the laws of the state of Delaware, and having offices at 2911 Zanker Road, San Jose, California, has acquired the entire right, title and interest in and to the invention, the application, and any and all patents to be obtained therefore, as per the Assignment, recorded at Reel 010198, Frame 0778 from the inventors to NeoPhotonics Corporation and an assignment from NeoPhotonics Corporation to NanoGram Corporation, recorded at Reel 013957, Frame 0076. Note that NeoPhotonics Corporation was formerly called NanoGram Corporation, and the present NanoGram Corporation was previously a wholly owned subsidiary of NeoPhotonics Corporation following the formal name change. The present NanoGram Corporation is now an independent corporation, but affiliated with the earlier NanoGram Corporation, now named NeoPhotonics Corporation.

RELATED APPEALS AND INTERFERENCES

The parent case 08/962,362 is presently under appeal, but none of the issues in the two cases overlap.

STATUS OF THE CLAIMS

Claims 1-5, 7-9 and 25-30 are pending and stand rejected. Claims 6, 10-24 and 31-40 have been canceled. The pending claims are listed in Appendix A.

STATUS OF AMENDMENTS

All amendments have been entered.

SUMMARY OF THE INVENTION

The present invention relates to highly uniform collections of nanoscale crystalline zinc oxide particles. Several forms of zinc oxide are described. The method of production claims from the application as filed were restricted out from the present application. These method claims were directed to a laser pyrolysis approach for the generation of zinc oxide. Laser pyrolysis can be very effective at the production of highly uniform particles due to a highly localized reaction zone. In particular, the reaction is rapidly quenched as the flow leaves the light beam. Laser pyrolysis is described throughout the Appellants' specification. In particular, see page 6, line 20 to page 8, line 13 and the Example.

The uniformity is claimed based on two distinct ways of describing the uniformity. In claim 1, the uniformity is described based on the drop off of the distribution away from the average particle diameter. To put the description in reverse, less than 5 percent of the particles have a diameter greater than about 160 percent of the average particle diameter, and less than 5 percent of the particles have a diameter less than about 40 percent of the average diameter. These conditions indicate that the particle size distribution is sharply peaked near the average diameter and specify the criteria to evaluate if it is sharply peaked enough to fall within the claims.

The second way to specify the uniformity is the subject of claims 4, 5, and 25. As this is sometimes put, there are no "boulders." In the nano-world, a boulder is of course very small. More specifically, in these claims the particle size distribution is described as lacking a tail in the distribution at larger diameters. Thus, the distribution is cut off abruptly with a specific cut-off in diameter specified in the claims. This feature is very difficult to achieve since most approaches for forming particles involve a chemical equilibrium with a corresponding distribution that drops off gradually. The laser pyrolysis process is inherently a non-equilibrium process and does not have these limitations. Only a very few other approaches are able to form a very limited number of other inorganic particles with this lack of a tail. Other approaches have not been known to form such uniform zinc oxide. The properties of the particles are described further in the specification, for example, at page 32, line 34 to page 36, line 7.

Claims 7-9 and 30 are directed to the use of the zinc oxide in resistors, varistors and specific forms thereof. Applicants' specification describes these electrical components, for example, at page 40, lines 17 to page 41, line 3.

ISSUES

1. Whether claims 1-5, 7-9 and 25-30 are anticipated by U.S. Patent 6,200,680 to Takeda et al.?

GROUPING OF CLAIMS

Claims 1-3, 27 and 29 are within a first claim group directed to a uniform collection of crystalline zinc oxide particles.

Claims 4, 5 and 25 are within a second claim group directed to uniform collections of crystalline zinc oxide particles with no large particles.

Claims 7, 8 and 9 are within a third group of claims directed to resistors elements comprising collections of crystalline zinc oxide particles.

Claim 26 is within a fourth claim group directed to a varistor with non-linear voltage dependence.

Claim 28 is within a fifth claim group directed to a collection of particles that are not elongated.

Claim 30 is within a sixth claim group directed to a collection of particles comprising ZnO_2.

ARGUMENT

The Examiner rejected claims 1-5, 7-9 and 25-30 under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent 6,200,680 to Takeda et al. (the Takeda patent). A copy of the Takeda patent is found in Appendix B. The Examiner asserted that the Takeda patent explicitly or inherently disclosed all of the features of Applicants' claimed invention. Appellants maintain strenuously that the Examiner has fallen far short of establishing prima facie anticipation of any of

Appellants' claims. Appellants respectfully request reconsideration of the rejections based on the following arguments.

A. Legal Background

1. Burden of Persuasion

The Examiner has the burden of establishing a prima facie case of anticipation. As such, the Examiner must provide a reference that discloses every element as set forth in the claim. "A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." Verdegaal Bros. v. Union Oil Co. of California, 814 F2d. 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987) (MPEP §2131).

2. A Single Reference Must Identically Disclose Every Element Set Forth In a Claim To Anticipate The Claim

"In order to constitute anticipatory prior art, a reference must identically disclose the claimed compound..." MPEP 2122 citing In re Schoenwald, 22 USPQ2d 1671, (Fed. Cir. 1992). "For a prior art reference to anticipate in terms of 35 U.S.C. § 102, **every element of the claimed invention must be identically shown in a single reference**. These elements must be arranged as in the claim under review, but this is not an 'ipsissimis verbis' test." In re Bond, 15 USPQ2d 1566, 1567 (Fed. Cir, 1990)(Internal citations omitted and emphasis added.).

"If the prior art reference does not expressly set forth a particular element of the claim, that reference still may anticipate if that element is 'inherent' in its disclosure. To establish inherency, the intrinsic evidence 'must make it clear that the missing descriptive matter is necessarily present in the thing described in the reference, and that it would be so recognized by persons of ordinary skill. Inherency, however, may not be established by probabilities or possibilities. The mere fact that a certain thing may result from a given set of circumstances is not sufficient.'" In re Robertson, 49 USPQ2d 1949, 1950, 1951 (Fed. Cir. 1999), citing Continental Can Co. v. Monsanto Co., 20 USPQ2d 1746, 1749 (Fed. Cir. 1991).

"Every element of the claimed invention must be literally present, arranged as in the claim. **The identical invention must be shown in as complete detail as is contained in the patent claim.**" Richardson v. U.S. Suzuki Motor Corp., 9 USPQ2d 1913, 1920 (Fed. Cir. 1989)(Internal citations omitted, and emphasis added.); see also MPEP 2131. "Here, as well, anticipation is **not** shown by a prior art disclosure which is only 'substantially the same' as the claimed invention." Jamesbury Corp. v. Litton Industrial Products, Inc., 225 USPQ 253, 256 (Fed. Cir. 1985)(emphasis added).

Similar requirements also hold under an obviousness rejection. Prima facie obviousness is not established if all the elements of the rejected claim are not disclosed or suggested in the cited art. In re Ochiai, 37 USPQ 1127, 1131 (Fed. Cir. 1995). ("The test for obviousness *vel non* is statutory. It requires that one compare the claim's 'subject matter as a whole' with the prior art 'to which said subject matter pertains.'"). See also, MPEP 2143.03 "All Claim Limitations Must Be Taught or Suggested," citing In re Royka, 180 USPQ 580 (CCPA 1974). "To establish prima facie obviousness of a claimed invention, all of the claim limitations must be taught or suggested by the prior art." MPEP 2143.03.

3. Compositions Of Matter

It is long established that a composition of matter is indistinguishable from its properties. In re Papesch, 137 USPQ 43, 51 (CCPA 1963); In re Cescon, 177 USPQ 264, 266 (CCPA 1973). There are two types of properties, chemical/compositional properties and physical properties. The chemical/compositional properties of the composition of matter determine what the material is, while the physical properties relate to the interaction and behavior of the composition of matter. Often unique or unexpected physical properties are used to establish the existence of an unobvious composition when chemical/compositional properties either are unknown or do not fully represent the unobviousness of the composition. However, discovery of a surprising or unexpected physical property does not necessarily control an obviousness determination, and all the evidence under the Graham factors must be considered. See, for example, Richardson-Vicks v. Upjohn Co., 44

USPQ2d 1181, 1187 (Fed. Cir. 1997). **In the present case, the claims do not relate to the discovery of properties of previously known or suggested materials.**

These issues regarding properties of compositions of matter were considered explicitly in the context of **chemical powders** in In re Grose, 201 USPQ 57 (CCPA 1979). The specific issue in the Grose case was the crystal structure of zeolites in a collection of zeolite particles. **Crystal structure, like particle size distribution or chemical formula, is a chemical/ compositional property of the composition of matter**. The zeolites in the Gross case were collections of particles, i.e., a powder. The relevant issues are well stated in In re Grose:

> Though nonobviousness of appellants' process for preparing their claimed composition would not be determinative of nonobviousness of the composition, a holding that the composition would have been nonobvious would require that the prior art fail to disclose or render obvious a process for preparing it.
>
> > [I]f the prior art of record fails to disclose or render obvious a method for making a claimed compound, at the time the invention was made, it may not be legally concluded that the compound itself is in the possession of the public. In this context, we say that the absence of a known or obvious process for making the claimed compounds overcomes a presumption that the compounds are obvious. ***
>
> In re Hocksema, 55 CCPA 1493, 1500, 399 F.2d 269, 274, 158 USPQ 596, 601 (1968)(foot note omitted). Failure of the prior art to disclose or render obvious a method for making any composition of matter, whether a compound or a mixture of compounds like a zeolite, precludes a conclusion that the compound would have been obvious.

In re Grose, 201 USPQ at 63-64 (emphasis added). Applicants note that in In re Grose the zeolites had the same chemical formula as the prior art zeolites and only differed in crystal structure.

Another CCPA case similarly ruled that an anhydrous crystalline form of a material was patentable over a non-crystalline form. In re Irani, 166 USPQ 24 (CCPA 1970). As stated in that case,

> As stated above, even assuming that one skilled in the art could have predicted with reasonable certainty that crystalline anhydrous ATMP could be produced, we are not convinced by this record how this could be achieved. We note that neither the examiner nor the board has contended that a suitable process would

> have been obvious. The closest that either has come to such a contention is the examiner's statement based on the disclosure in the Irani patent, that, as it turns out, 'little modification of the Petrov *** process will produce a crystalline material.' Obviousness, however, must not be based on hindsight and a 'little modification' can be a most unobvious one.
>
> **In view of the foregoing, we need not consider appellants' arguments regarding the differences in properties between appellants and Petrov's forms of ATMP.**

In re Irani, 166 USPQ at 27 (bold added).

4. To Support A Finding Of Unpatentability Based On Cited Art, The Cited Art Must Provide A Means Of Obtaining The Claimed Composition Or Apparatus

The proposition is well established that the cited art only renders a composition of matter or apparatus unpatentable to the extent that the cited art enables the disputed claims, in other words, if the cited art provides a means of obtaining the claimed composition or apparatus.

> To the extent that anyone may draw an inference from the Von Bramer case that the mere printed conception or the mere printed contemplation which constitutes the designation of a 'compound' is sufficient to show that such a compound is old, regardless of whether the compound is involved in a 35 U.S.C. 102 or 35 U.S.C. 103 rejection, we totally disagree. ... We think, rather, that the true test of any prior art relied upon to show or suggest that a chemical compound is old, is whether the prior art is such as to place the disclosed 'compound' in the possession of the public. In re Brown, 141 USPQ 245, 248-49 (CCPA 1964)(emphasis in original)(citations omitted).

Similarly, see In re Hoeksema, 158 USPQ 596, 600 (CCPA 1968)(emphasis in original):

> We are certain, however, that the invention as a whole is the claimed compound and a way to produce it, wherefore appellant's argument has substance. There has been no showing by the Patent Office in this record that the claimed compound can exist because there is no showing of a known or obvious way to manufacture it; hence, it seems to us that the 'invention as a whole,' which section 103 demands that we consider, is not obvious from the prior art of record.
>
> While there are valid reasons based on public policy as to why this defect in the prior art precludes a finding of obviousness under section 103, In re Brown, supra, its immediate significance in the present inquiry is that it poses yet another difference between the claimed invention and the prior art

> which must be considered in the context of section 103. So considered, we think the differences between appellant's invention as a whole and the prior art are such that the claimed invention would not be obvious within the contemplation of 35 U.S.C. 103.

The Federal Circuit has further emphasized these issues. "But to be prior art under section 102(b), a reference must be enabling. That is, it must put the claimed invention in the hands of one skilled in the art." In re Sun, 31 USPQ2d 1451, 1453 (Fed. Cir. 1993)(unpublished). Assertions in a prior art reference do not support an anticipation or obviousness rejection unless the references place the claimed invention in the hands of the public. Beckman Instruments Inc. v. LKB Produkter AB, 13 USPQ2d 1301, 1304 (Fed. Cir. 1989). "In order to render a claimed apparatus or method obvious, the prior art must enable one skilled in the art to make and use the apparatus or method." Id. While a properly citable reference is prior art for all that it teaches, references along with the knowledge of a person of ordinary skill in the art must be enabling to place the invention in the hands of the public. In re Paulsen, 31 USPQ2d 1671, 1675 (Fed. Cir. 1994). See also In re Donohue, 226 USPQ 619, 621 (Fed. Cir. 1985).

B. Analysis - Rejection Over Takeda et al.

The Examiner asserted that the claims met the particle size limitations as well as the distribution of particle sizes. The Examiner further asserted that the Takeda patent disclosed particles with a diameter of "about 5 nm." Furthermore, The Examiner asserted that the Takeda reference inherently discloses a varister and teaches the stoichiometry of zinc oxide. In addition, the Examiner asserted that the Takeda patent disclosed a white metal oxide comprising antimony. With all due respect, Applicants maintain that the Examiner has fallen far short of establishing prima facie anticipation for the reasons described in the following.

1. Group 1 Claims

Scope of Claim 1

In an Advisory Action dated September 29, 2004, the Examiner stated "The fine particles meet the claims before and after being formed into a composition. As for the latter, Applicants'

claim does not preclude other elements." This statements suggests that the Examiner is taking an inappropriate meaning for the term particle.

First, an article should be scrutinized based on what it is and not based on how it is formed or what its components could be. With respect to the Takeda patent, the fine powders are used to form composite particles. The composite particles are not still fine particles, and similarly a car is not steel ingots. From that perspective, one must separately examine the composite particles or the fine particles to see if they anticipate Appellants' claimed invention.

It is definitely true that Appellants' claims do not preclude other elements. Thus, from a composition point of view alone, the composite particles may possibly meet the feature relating to crystalline zinc oxide composition. However, the composite particles do not meet the other features of Appellants' claimed invention as explained in detail below. Similarly, the fine particles do not meet all of the claim features as described in detail below. However, before completing the analysis, the meaning of the term particle is considered.

The plain and clear meaning of a particle in this context is a separate entity that can be identified distinct from other particles. However, in the material community, the term primary particle is sometimes used to refer to particles that are formed as intermediates in the synthesis process but are fused into the ultimate particles. Since the ultimate particles may have properties that reflect the intermediates it can be convenient to refer to primary particle size as a property of the ultimate or secondary particles. If the process used to form the particles does not produce intermediate particles, the primary particles and secondary particles are the same. Nevertheless, as disclosed and claimed by Appellants it is clear that the claim term particle is referring to physical particles or secondary particles, and not to fused primary particles. This is the ordinary meaning, and there is no reason from Appellants' specification to give the term a different meaning.

Analysis of Group 1 Claims

The Takeda patent discloses two materials that could but do not fall under Applicants' claims. One of these materials is referred to as a fine powder and the second material is a composite. The relationship of these materials is described schematically in a diagram in Appendix C. Specifically, the fine particles are incorporated into the composite particles.

The composite particles are easy to distinguish over Applicants' claimed compositions of matter. The composite particles can comprise crystalline zinc oxide. However, the composite particles have average particle sizes of 0.1 to 10 microns. See, for example, column 25, lines 29-30. It is not clear whether or not the uniformity specified in the Takeda patent for the composite particles falls within Applicants' claimed uniformity. But this is irrelevant since the composite particles do not have the claimed average particle size. Specifically, about 95 nanometers is less than 100 nanometers or 0.1 microns. Therefore, the composite particles clearly do not anticipate Applicants' claimed invention.

The Examiner asserted in the Advisory Action of September 9, 2004, that the fine particles anticipate before incorporation into the composite particles. Unfortunately, the Examiner has never explained the basis for this position. Under the clear law, the Examiner has the burden of establishing prima facie anticipation by showing that all the claim limitations are found in a single reference and arranged as in the claim. The Examiner has failed to do this. Nevertheless, while Appellants have no obligation to do this, Appellants will explain why the fines do not meet the claim limitations, to advance prosecution of the case.

As Appellants have repeatedly pointed out, the Takeda patent does not teach the claimed uniformity for the zinc oxide fines. With respect to the process for make zinc oxide, Example 14 described the formation of large agglomerates. These agglomerates are pulverized to make the fines. Referring to Fig. 2 and the discussion in column 89, lines 11-21, it is clear that the fines are primary particles that are agglomerated. The fragments in Fig. 2 are just that fragments. The resulting "particles" seen in Fig. 2 are in a wide range of shapes and sizes consistent with the particles being fragments. These fines in no way have a uniformity close to the uniformity

disclosed and claimed by Appellants. Therefore, the fine zinc oxide particles clearly do not come close to rendering Appellants' claims prima facie anticipated.

The Examiner has clearly fallen far short of establishing prima facie anticipation. Claims 1-3, 27 and 29 are not anticipated by the Takeda patent.

Group 2 Claims

Claims 4, 5 and 25 specify the uniformity with respect to the lack of particles with especially large diameters. As discussed above, the Takeda particles are formed by grinding which results in a wide range of particle sizes. Since grinding is an imprecise process, there will remain some ineffectively ground particles. Thus, the resulting particles will not lack especially large particles. Therefore, these claims are clearly not anticipated, and the Examiner has clearly failed to establish prima facie anticipation.

Group 3 Claims

Group 3 claims are directed to a resistor, varistor and a varistor with a non-linear voltage dependence. The Takeda patent does not discuss any of these devices. The Examiner asserts that the Takeda patent inherently discloses these devices. The only possible basis for this assertion is that the powder or generic structures formed from the powder is basically a resistor. According to the Webster's 10th Collegiate Dictionary, a resistor is "a device that has electrical resistance and that is used in an electrical circuit for protection, operation, or current control." Applicants specification shows one embodiment with electrical leads. While this is not the only embodiment of a resistor certainly, the Examiner has not pointed to any structure in the Takeda patent that **necessarily** (as required by law) could be incorporated as is into an electrical circuit. Therefore, the Examiner clearly has fallen far short of establishing prima facie anticipation.

Group 4 Claims

Claim 26 indicated that 95% of the particle are not rod shaped in that they have an aspect ratio less than two. Referring to Fig. 2, the prominent particle in the view has a length of roughly 8.5 centimeters and a width of about 5.5 centimeters. Presumably, the magnification is not distorting the shape of the particles. While the aspect ration of this one particle is less than two,

about 1.55, it seems unlikely that these fragments will have less than 5 percent of the particles with an aspect ratio less than 2. In any case, the Examiner has not asserted how this condition is met by the particles in the Takeda patent. Therefore, the Examiner has clearly failed to assert a case of prima facie anticipation of claim 26 over the Takeda patent.

Group 5 Claim

Claim 28 specifies that the zinc oxide has a stoichiometry of ZnO_2. The Takeda patent indicates only a stoichiometry of ZnO. The Examiner indicated that the reference "teaches the stoichiometry of zinc oxide." Perhaps ZnO, but not ZnO_2. Since the reference falls far far short of disclosing identically the claimed invention, the Takeda patent clearly does not anticipate Applicants' claimed invention, and the Examiner has failed to assert a case of prima faice anticipation.

Group 6 Claim

Claim 30 indicates an electrical resistor further comprising a metal/metalloid oxide selected from a particular group. As noted above, the Takeda patent does not disclose an electrical resistor structure. The Examiner points to the disclosure of a white metal oxide, but the Examiner does not point to the white metal oxide within an electrical resistor. Again, the Examiner has fallen far-far short of establishing prima facie anticipation.

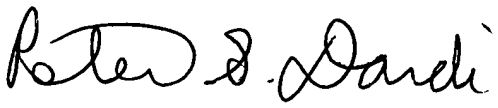
Summary

The Examiner has failed to assert a prima facie case of anticipation for any of the claims. Appellants have further explained why the Takeda patent clearly does not render Applicants' claimed invention anticipated.

CONCLUSIONS

Applicants submit that claims 1-5, 7-9 and 25-30 are free of the Takeda patent. Applicants believe that the Patent Office has failed to meet their burden of persuasion with respect to unpatentability of any of the claims on the present record. Thus, Applicants Respectfully request the reversal of the rejections of claims 1-5, 7-9 and 25-30 and allowance of the application.

Respectfully submitted,



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APPENDIX A

1. A collection of particles in a powder comprising crystalline zinc oxide, the collection of particles having an average diameter less than about 95 nm and a distribution of particle sizes such that at least 95 percent of the particles have a diameter greater than about 40 percent of the average diameter and less than about 160 percent of the average diameter.

2. The collection of particles of claim 1 wherein the collection of particles have an average diameter less than about 45 nm.

3. The collection of particles of claim 1 wherein the collection of particles have an average diameter from about 5 nm to about 25 nm.

4. The collection of particles of claim 1 wherein effectively no particles have a diameter greater than about four times the average diameter of the collection of particles.

5. The collection of particles of claim 1 wherein effectively no particles have a diameter greater than about three times the average diameter of the collection of particles.

6. (Cancelled)

7. An electrical resistor component comprising the collection of particle of claim 1.

8. The electrical resistor component of claim 7 wherein the component is a varister.

9. The electrical resistor component of claim 8 wherein the varister has a non-linear voltage dependence.

10-24. (Cancelled)

25. The collection of particles of claim 1 wherein effectively no particles have a diameter greater than about two times the average diameter of the collection of particles.

26. The collection of particles of claim 1 wherein at least 95 percent of the particles have ratios of the dimension along the major axis to the dimension along the minor axis less than about 2.

27. The collection of particles of claim 1 wherein the zinc oxide has a stoichiometry of ZnO.

28. The collection of particles of claim 1 wherein the zinc oxide has a stoichiometry of ZnO_2.

29. The collection of particles of claim 1 wherein the zinc oxide has a Zincite crystal structure.

30. The electrical resistor component of claim 7 further comprising metal/silicon oxide particles selected from the group consisting of Bi_2O_3, Sb_2O_3, SiO_2, Co_2O_3, and MnO_2.

31-40. (Cancelled)

ATTACHMENT FOR REQUEST FOR RECONSIDERATION

MATERIALS DESCRIBED IN U.S. 6,200,680

I. Zinc Oxide Fine Particles - Average Primary Particle Size 0.005 to 0.1 microns.

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II. Zinc Oxide-Polymer Composite Particles - Average Particle Size 0.1 to 10 microns. These are formed from zinc oxide fine particles and a polymer. Coefficient of particle size variation not more than 15%.